extreme complexity, a system with so many characteristics, continues to maintain its individuality in spite of all the changes that are taking place within it and without * is more peculiar than the dynamical equilibrium of the atom. It is implied that the equilibrium of the organism, though more peculiar, is to be regarded as in principle explained mechanistically because the atom also exhibits dynamical equilibrium. But the dynamical equilibrium of the atom is itself hitherto without mechanistic explanation. And each cell of any organism is almost infinitely more complex than any atom of inorganic matter. And each higher organism comprises a vast multitude of cells : the human brain alone is said to comprise some nine or ten thousand millions of cells. Yet all this countless multitude of cells comprised in the organization maintains its dynamic equilibrium with its environment—so long as it lives. The implication that the fact is mechanically explained by pointing to the atom as also exhibiting dynamical equilibrium is strictly absurd.

Hogben contemptuously dismisses from biology the conceptions of function, adaptation, organization, and purpose; for, as he rightly says, all these imply teleological consideration ; and teleology is anathema for him. Yet, while utterly repudiating teleology, he (like so many other mechanists) quite fails to avoid the use of language which implies it; as when he writes of ' the goal of biological inquiry'. Whoever recognizes goals, implies goal-seeking, and goal-seeking behaviour is teleological activity. He supports this

sweeping repudiation of adaptation (and of all other terms that have teleological implications) by saying: [f] We have seen that the ultimate non-biological constituents of living matter, molecules, atoms, etc., do not behave differently when